

WHAT is claimed is:

1. A spread illuminating apparatus, wherein a square transparent substrate is provided close to the surface of a liquid crystal panel, and a plurality of straight groove portions are formed on the surface of said transparent substrate intersecting one another obliquely with respect to the four sides of said transparent substrate.
- Sub C1
2. A spread illuminating apparatus in which a square transparent substrate is provided close to the surface of a liquid crystal panel and said liquid crystal panel is illuminated through said transparent substrate by a bar-like light source which is provided parallel with the side surface of said transparent substrate, wherein a plurality of straight groove portions are formed on the surface of said transparent substrate intersecting one another obliquely with respect to the four sides of said transparent substrate.
3. A spread illuminating apparatus according to claim 1 or 2, wherein said groove portions are substantially triangular in cross section.
- a 4. A spread illuminating apparatus according to claim 1 or 2, wherein the interval between said groove portions is decreased as the distance from said bar-like light source increases.
- a 5. A spread illuminating apparatus according to claim 1 or 2, wherein the depth of said groove portions is increased as the distance from said bar-like light source increases.
- a 6. A spread illuminating apparatus according to claim 1 or 2, wherein an angle defined between each of said groove portions and the side of said transparent substrate opposing said bar-like light source is in the range of 10 to 45 degrees.
- a 7. A spread illuminating apparatus according to claim 1 or 2, wherein said bar-like light source comprises a bar-like fluorescent tube.
- a 8. A spread illuminating apparatus according to claim 1 or 2, wherein said bar-like light source includes a bar-like transparent light conductive member and a light emitting diode which is provided at the end portion of said bar-like transparent light conductive member.

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